

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/001738

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G21C13/024 G21C5/10 B65D90/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G21C B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 889 758 A (ENGLISH ELECTRIC CO LTD; BABCOCK & WILCOX LTD) 21 February 1962 (1962-02-21) page 1, lines 11-75	1-3, 12, 23, 28, 29
Y		4-11, 13, 20-22, 24, 25
Y	GB 808 739 A (ASS ELECT IND) 11 February 1959 (1959-02-11) page 1, lines 10-31 page 2, lines 51-77 page 2, line 126 - page 3, line 11	4-11
A		1-3
X	US 3 986 581 A (CALDWELL DONALD B) 19 October 1976 (1976-10-19) column 2, line 59 - column 3, line 21; figures 1-3	1, 28
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

17/03/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 82/04092 A (TOYAMA JUN)	1-3
Y	25 November 1982 (1982-11-25) abstract	4-11
X	----- US 4 008 757 A (WEATHERFORD, JR. ET AL)	1,28
Y	22 February 1977 (1977-02-22)	4-11
A	columns 3-5 figure 1	12,13, 17,20,21
Y	----- US 4 379 119 A (FUJIMOTO ET AL)	13,20-22
	5 April 1983 (1983-04-05) columns 2,3	
A	----- GB 1 080 405 A (SOCIETE ANGLO-BELGE VULCAIN) 23 August 1967 (1967-08-23)	1,2
Y	page 2, lines 36-68; figures 1-5 -----	24,25

## Information on patent family members

International Application No

PCT/IB2004/001738

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 889758	A	21-02-1962	DE 1086355 B FR 1214596 A	04-08-1960 11-04-1960
GB 808739	A	11-02-1959	NONE	
US 3986581	A	19-10-1976	CA 1049216 A1 JP 1082423 C JP 52100704 A JP 56024135 B MX 145628 A SU 822765 A3	27-02-1979 29-01-1982 24-08-1977 04-06-1981 17-03-1982 15-04-1981
WO 8204092	A	25-11-1982	JP 57189096 A JP 57195457 A AU 8396782 A WO 8204092 A1	20-11-1982 01-12-1982 07-12-1982 25-11-1982
US 4008757	A	22-02-1977	AR 216057 A1 AT 342092 B AT 568376 A AU 1589376 A BE 845064 A1 BR 7605165 A CA 1029705 A1 CH 611996 A5 DE 2638181 A1 ES 450620 A1 FI 762145 A ,B, FR 2324977 A1 GB 1511440 A IL 49982 A IT 1064701 B JP 959956 C JP 52039851 A JP 53042898 B MX 142984 A NL 7607674 A NO 762343 A ,B, PH 14850 A SE 426094 B SE 7608513 A YU 177576 A1 ZA 7604081 A	30-11-1979 10-03-1978 15-07-1977 28-07-1977 01-12-1976 02-08-1977 18-04-1978 29-06-1979 31-03-1977 01-08-1977 23-03-1977 15-04-1977 17-05-1978 30-12-1977 25-02-1985 28-06-1979 28-03-1977 15-11-1978 30-01-1981 24-03-1977 23-03-1977 06-01-1982 06-12-1982 23-03-1977 25-02-1982 22-02-1978
US 4379119	A	05-04-1983	JP 1392409 C JP 56073387 A JP 61059469 B	23-07-1987 18-06-1981 16-12-1986
GB 1080405	A	23-08-1967	BE 668161 A DE 1514535 A1 FR 1445878 A LU 46789 A1	11-02-1966 04-09-1969 15-07-1966 18-02-1966

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2004/001738

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11,28, 29

A support arrangement and a method therefore which includes a vessel to be supported by a single vertical support and a lateral support means at an elevation above that of the vertical support. The vessel being a core barrel of a high temperature gas cooled nuclear reactor which includes a reactor pressure vessel the vertical support including upper and lower support members connected to the core barrel and the reactor vessel respectively. The support members having curved surfaces; an intermediate member defining the contact surface. The specific shape of the surfaces.

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2. claims: 12-22

A lateral support means comprising inner and outer lateral support members, a roller sandwiched between inner and outer member, a resiliently deformable support with adjustable deformable guide beams and support posts. A lower lateral support comprising elastically deformable elements.

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3. claims: 23-27

Auxiliary support mean for supporting the core barrel when subjected to exceptional loads comprising a lower support ring; slots and protrusions provided in other members to secure the support ring.

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